L 45582-65

ACCESSION NR: AP5009132

intensified and steam production is increased by three circulation loops intended
for production of secondary steam. The reactor is planned to operate at 35--100
atm. The active zone of the reactor is 2 m high and 2.7 m in diameter, placed in
a vertical cylindrical reactor vessel 3.8 m o.d. and 11 m high. The active zone
consists of 26 tons of 1.5% enriched uranium. The fuel rods have outside dia-
meters of 10.2 cm and are clad in zirconium. Research on the reactor is conti-
nuing.

ASSOCIATION: None

SUBMITTED: 00   ENCL: 00   SUB CODE: NP

NR REF SOV: 000   OTHER: 000

Card 2/2

PARFUS, Ludvik, inz.

Use of irrigation in Vedomice near Roudnice nad Labem. Vodni
hosp 13 no.4:149-152 '63.

1. Vyzkumny ustav melioraci, Praha.

1. PARFYANOVICH, I. A.

2. USSR (600)

4. Luminescence

7. Mechanism of flashing and the nature of flash levels of alkyl halides excited by X-rays. Izv AN SSSR Ser fiz No. 5 1951.

9. Monthly List of Russian Accessions, Library of Congress, _____April_____ 1953, Uncl.

1. I. A. PARFYANOVICH

2. USSR (600)

4. Alkyl Halides

7. Mechanism of flashing and the nature of flash levels of alkyl halides, excited by X-rays. Izv. AN SSSR, Ser. fiz. 15 no. 5. S-0. 1951.

9. Monthly List of Russian Accessions, Library of Congress, ___April___ 1953, Uncl.

PARFYENOV, A. P.

IA 1T77

USSR/Medicine   Feb 1947
        Tuberculin activity

"The Influence of a Steady Electric Current upon the
Activity of Tuberculin," A P Parfyenov and B L
Sinelnikova, 2 pp

"Byul Eksper Med I Biol" Vol XXIII, No 2

Results of electrolytic investigations

1T77

PARGAMANIK, L. E.

Ak'iyezer, A. I. and Pargamanik, L. E. - "Free oscillations of the electron plasma in a magnetic pole", Uchen. zapiski Khar'k. os. un-ta im. Gor'kova, Vol. XXVII, Trudy Fiz. otdniya Fiz-matem. fak., V. I, 1948, p. 75-104.

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949.

PARGAMANIK, L.Ye.

USSR/Physics - Magnetron, Statistical   21 May 52
                              Theory

"Statistical Theory of the Magnetron (Statistical
State)," G. Ya. Lyubarskiy, I. E. Pargamanik

"Dok Ak Nauk SSSR" Vol LXXXIV, No 3, pp 491-494

Considers a long cylindrical magnetron with complex
anode of radius R and with thin axial cathode of
smaller radius r; the magnetic field H is parallel
to the axis and the applied potential difference
is E. Explains how far the statistical approach
is convenient for description of the statistical
state of the magnetron, under the assumption that

the electrons entering and leaving the electron gas
to the electrodes do not markedly disrupt the state
of statistical equil. Employs the method of self-
matching field in the statistical study. Compares
results of the statistical theory with A. Hull's.
Submitted by Acad M. A. Leontovich 1 Apr 52.

(PA 76 no. 668: 5743 53)

225T85

225T85

225T85

PARGAMANIK, L E

AUTHOR: PARGAMANIK,L.E., MINTS,M.Ya.   57-6-23/36

TITLE: Contribution to the Diffusion Theory of the Magnetron (Static State). (K diffuzionnoy teorii magnetrona (staticheskiy rezhim), Russian).

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 6, pp 1301 - 1305 (U.S.S.R.)

ABSTRACT: It is assumed that the temperature in the entire volume is constant and that the relaxation of the electron gas is determined by the diffusion coefficient $D = kTb$, where b is the mobility of the electron. A long cylindrical magnetron with a full anode, radius r_a and a thin cathode, radius $r_k \ll r_a$, is investigated on the axis. The potential gradient between the electrodes is ϕ and the voltage of the magnetic field is H. The motion of the electrons is expressed by the equation for the diffusion of the electron gas in the exterior field. The influence exercised by the magnetic field is disregarded. In the diffusion theory the density of the electrons is connected with the potential not locally (like in the case of the statistical theory), but integrally. The boundary conditions of the diffusion flow are obtained on the assumption that a reflection of the electrons impinging on the electrodes does not take place. The equation for

Card 1/2

Contribution to the Diffusion Theory   57-6-23/36
of the Magnetron (Static State).

the static state of the magnetron is derived and its character-
istics are determined. The unknown function contained therein
is determined from the Poisson equation. As the solution of the
here derived integral-differential equation is very difficult,
an approximated solution is deemed sufficient. The dependence of
temperature and current on the magnetic field for the static
state of the magnetron is found. According to the formula obtained
temperature can be computed on the basis of the test character-
istics. In conclusion, the results of the diffusion theory for
the static state of the magnetron are compared with those of
the statistical theory, and essential differences found.
(With 1 illustration and 3 Slavic references).

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED: 9/7/1956
AVAILABLE: Library of Congress

Card 2/2

PARGAMANIK, L.E.

theory of an electron gas in the presence of boundaries
[with summary in English]. Zhur. eksp. i teor. fiz. 33 no.1:251-
255 Jl '57.   (MLRA 10:9)

1. Khar'kovskiy gosudarstvennyy univetsitet.
                        (Electron tubes)

PARGAMANIK, L. E.

AUTHOR	PARGAMANIK, L.E.
TITLE	On the Kinetic Theory of an Electron Gas in the Presence of Boundaries.
	(K kineticheskoy teorii elektronnogo gaza pri nalichii granits.- Russian)
PERIODICAL	Zhurnal Eksperim. i Teoret. Fiziki 1957, Vol 33, Nr 7 pp 251 - 255 (USSR)

56-7-36/66

ABSTRACT

The author uses the method discussed here for the integration of the kinetic equation for the charged particles for such problems as can be reduced to the onedimensional problems. As an example the passage of a constant electron flux through a plane diode is investigated. The collective interaction between the electrons is described by means of the self-consisting field and the individual interaction between the electrons i.e. the collisions are not taken into account. Under these presumptions the distribution function $f(x,y)$ suffices for the electron gas of the kinetic equation

$$v(\partial f/\partial x) - (u'(x)/m)\ \partial f/\partial v = 0$$

The potential energy $u(x)$ of the electron in the self-consisting field has to be determined by POISSON'S equation

CARD 1/3

On the Kinetic Theory of an Electron Gas in the
Presence of Boundaries.

56-7-36/66

$$d^2u/dx^2 = -4\pi e^2 n(x), \quad n(x) = \int_{-\infty}^{\infty} f(x,v)dv.$$

The boundary conditions for the distribution function
is formulated here for the most typical case, namely
for the domain limited by two surfaces (in the case
of a diode: anode and cathode). The known mathematical
difficulties when investigating the general case are,
according to the opinion of the author, caused by in-
correct assumption of the boundary conditions. The
physical processes at the boundaries (emission, reflec-
tion and absorption of particles) are mathematically
formulated in form shape of functional equations for
their boundary values (but not by assumption of the
boundary values themselves). Here it is now shown, that
in the case of such boundary conditions the kinetic
equation can be solved. The boundary conditions have
to describe, in the case of the diode, the emission of
electrons from the cathode and the elastic reflection
from the electrodes. The reflection coefficient here
depends upon the energy of the electron. Such a reflec-
CARD 2/3   tion really occurs; it represents a quantum effect

56-7-36/66

On the Kinetic Theory of an Electron Gas in the
Presence of Boundaries.

which is connected with the passage of the charged
particle through the potential jump at the boundary
metal-vacuum. Here the solution for any function
$R(mv^2/2)$ is constructed.
(With 1 Illustration)

ASSOCIATION: Khar'kov State University.
                (Khar'kovskiy gosudarstvennyy universitet.- Russian)

PRESENTED BY: -
SUBMITTED: 29.1. 1957
AVAILABLE: Library of Congress.

CARD 3/3

PARGAMANIK, L.E.

26.2112
Translation from: Referativnyy Zhurnal, Fizika, 1960, No. 6, p. 30, # 13142

AUTHORS: Sinel'nikov, K.D., Zeydlits, P.M., Weitrauberich, A.N., Sonokin,
            P.A., Sidtkarov, I.S., Anufreyev, B.S., Koval, N.Ye., Levkovich,
            P.A., Pargaranik, A.L., Lifshits, I.M., Pargaras, V.B., Rozents-
            veyg, L.B., Grabowsky, G.Ye., Lazurev, M.T., Partamanik, L.E.

TITLE: A 20.5-Mev Linear Proton Accelerator/9

PERIODICAL: Tr. Sessii AN UkrSSR, po akrn. zapol'sovaniyu atomn. energii. Kiyev,
            AN UkrSSR, 1958, pp. 5-15

TEXT: The physical substantiation of the parameter choice is presented
and the design of a linear proton accelerator with a drift tube at 20.5 Mev energy
is described; the accelerator was constructed in the Fiziko-tekhnicheskiy insti-
tute AN UkrSSR (Institute of Physical Engineering of the AS UkrSSN). The main con-
putational data of the accelerator are the following. The operational wave length
is λ = 215 cm, the injection energy is 1.7 Mev, the length of the accelerator is
1,146.8 cm, the synchronous phase is 20°, the length of the first half-tube is
1.875 cm, that of the last one is 16.775 cm, the length of the first gap is
3.920 cm, that of the last one is 11.150 cm, the length of the first drift tube
is 0.195 cm, that of the last one is 52.555 cm. Altogether, the number of drift
tubes is 50, that of the half tubes is 2; the acceleration system begins and ends
with the latter. At the entrance of every drift tube, focusing grids are fixed
containing parallel tungsten wires of 0.07 mm thickness; their total geometric
transmittance amounts to 75%. The drift tubes are installed within the resonator
by means of a suspension system; the resonator is made as a 1,146.8-cm long regular
18-face prism. The resonator is fed from 20 h.f.generators. The Q-factor of the
resonator in the loaded state is equal to 6.5·10⁴ in consequence of which the h.f.
power needed for accelerating particles to the rated energy amounts to 1.2 Mw. An
electrostatic generator operating by pulses with the pulse duration of 500 μ sec
at about 1 ma current intensity and 1.7 mv voltage serves as proton injector. The
principal circuit and the design of the individual accelerator units are presented.

ASSOCIATION: Fiz.-tekhn. in-t AN UkrSSR (Physico-Engineering Institute of the
              Ukrainian Academy of Sciences)
                                                                  A.F. Paleyev

Translator's note: This is the full translation of the original Russian abstract.

Card 1/2

Card 2/2

AUTHORS: Pargamanik, L. E., Ul'yanov, V. V.   SOV/56-35-1-36/59

TITLE: On the Theory of the Interaction Between Fast Neutron.
                Different Angular Momenta and Semitransparent Nuclei
                (K teorii vzaimodeystviya bystrykh neytronov s razlichn,...
                momentami s poluprozrachnymi yadrami)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
                Vol. 35, Nr 1, pp. 258-264 (USSR)

ABSTRACT: A number of papers has recently been published (Refs 1 - 4)
                which deal with the theory of the scattering of particles on
                nuclei and which operate with the model of the complex
                potential well. The dependence of σ on E was investigated
                for high as well as for low neutron energies in the interac-
                tion of nuclei; this was done for moments $\ell \lesssim kR/2$: Drozdov
                (Ref 3), however, investigated the absorption cross section
                of fast neutrons by using the semiclassical method developed
                by Petrashen' (Ref 6) for $\ell \sim kR$, inspite of the fact that
                this method gives satisfactory results only for $\ell < kR$. (How-
                ever, integration is cut off at $\ell = kR-1/2$ during calculation
                of the cross sections). The present paper also investigates
Card 1/3   the case of $\ell \sim kR$. The paper is divided into the following

On the Theory of the Interaction Between Fast   SOV/56-35-1-36/59
Neutrons With Different Angular Momenta and Semitransparent Nuclei

3 sections: 1) for the domain of small momenta ($\ell < x$) with
an ansatz for the interaction energy $U(r) = -V-iW$ at $r \leq R$
and $U(r) = 0$ at $r > R$, 2) for the domain of transition with
$\ell \sim x$, and, finally, 3) scattering- and absorption cross
sections are dealt with. The square-well nuclear model serves
as a basis for theoretical deliberations; for the approxima-
tion of the expressions for partial cross sections special
asymptotic formulae for Bessel functions are used, which are
applicable to the entire domain of the angular momentum In
this way the waves with $\ell \sim kR$ are dealt with with greater
accuracy than is possible in classical approximation The
corrections of the integral absorption- and scattering cross
sections derived here are appreciable at high and low
effective absorption. In conclusion, the authors thank
A.I. Akhiyezer for discussing results.
There are 3 figures and 8 references, 5 of which are Soviet

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State
               University)
Card 2/3

24(5)

AUTHORS: Galayko, V. P., Pargamanik, L. E.   SOV/20-123-6-12/50

TITLE: On the Correlation Functions for Systems of Equal Charged
                Particles (O korrelyatsionnykh funktsiyakh dlya sistemy
                odinakovykh zaryazhennykh chastits)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 6, pp 999-1002
                (USSR)

ABSTRACT: In the present paper, the correlation functions for charged
                particles (in the inhomogeneous case) are constructed according
                to the method of iterations which permits the calculating of
                corrections of any order of approximation. The authors
                investigate also the physical significance of this method. The
                potential energy of the particle in the self-consisting field is
                introduced into the equations of this problem. The authors
                investigate the interaction of a pair of charged particles which
                are placed in a "medium" of particles of the same kind. At small
                mutual distances this interaction satisfies the Coulomb (Kulon)
                law, but at great distances the Coulomb interaction is shielded
                by the "medium", and the interaction is due to the self-
Card 1/3   consisting field. In first approximation it is possible to

On the Correlation Functions for Systems of   SOV/20-123-6-12/50
Equal Charged Particles

neglect the correlation of the medium with the first particle.
A formal expansion is not advantageous, and the authors apply
the method of iterations. According to this method, it is
possible to find all the k-particle potentials with any desired
degree of exactness. The explicit calculations are, however,
very complicated and not interesting from the viewpoint of
physics. The authors then give a formula for the potential
energy of the interaction of a subsystem which consists of
s charged particles. This formula represents the sum of the
energy of interaction of each particle with the "medium", of
the energies of the shielded (by the medium) interaction of all
the pairs, of all the triplets, ..., of all the sets of
s particles. The interaction with the self-consisting field and
the Debye (Debaye) pair interaction play the main rôle. The
other terms in the above-mentioned formula are of higher order
of smallness. According to the results of the present paper,
effective-short-range forces (which can be described by a Debye
potential) can be introduced. In the inhomogeneous case, the
expressions found for the correlation functions are valid for
functions which occupy a finite volume.

Card 2/3

On the Correlation Functions for Systems of
Equal Charged Particles

SOV/20-123-6-12/50

The method discussed in this paper can be applied to systems
of charges of various signs and to the kinetic theory of
charged particles. The authors thank I. M. Lifshits who
discussed the results of the present paper. There are
4 references, 3 of which are Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo
(Khar'kov State University imeni A. M. Gor'kiy)

PRESENTED: July 18, 1958, by N. N. Bogolyubov, Academician

SUBMITTED: July 17, 1958

Card 3/3

S/051/60/008/005/017/027
E201/E491

AUTHORS: Daych, A.R., Tsirlin, Yu.A. and Pargamanik, L.E.

TITLE: Passage of Light Through Optical Waveguides

PERIODICAL: Optika i spektroskopiya, 1960, Vol.8, No.5, pp.713-720

TEXT: The authors discuss passage of light through cylindrical
optical waveguides with specularly reflecting walls, using the
geometrical-optics approximation.   The discussion deals with the
following cases: 1) waveguides with a light source of uniform
intensity lying on the waveguide axis and with a source whose
intensity is proportional to the cosine of the angle made with the
waveguide axis;   2) waveguides with and without total reflection
at its internal surfaces and also waveguides with the walls coated
with a special reflecting layer;   3) waveguides for which
absorption of light in the walls is neglected and waveguides for
which this absorption is allowed for.   The transmission coefficient
is obtained for these cases and the dependence of this coefficient
on the waveguide dimensions and conditions of reflection at the
walls is discussed.   The authors also compare waveguides of various
types.   The paper is entirely theoretical.   There are 3 figures.

Card 1/2

S/051/60/008/005/017/027
E201/E491

Passage of Light Through Optical Waveguides

1 mathematical appendix and 14 references: 11 English, 2 French
and 1 translation from German into Russian.

SUBMITTED: September 18, 1959

Card 2/2

28926
S/056/61/041/004/010/019
B104/B102

_26.Y311_

AUTHOR: Pargamanik, L. E.

TITLE: Energy-level shift of the atoms in a plasma

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41,
            no. 4(10), 1961, 1112-1118

TEXT: By means of the graph technique the author calculates the energy-
level shift of single-electron atoms in an equilibrium plasma $(T = \beta^{-1})$.
As is known, Green's single-electron temperature function

$$G(x, y) = S(x - y) + \int dx' dy' S(x - x') \Sigma^{*}(x', y') G(y', y), \qquad (4)$$

satisfies the Dyson equation. In this relation $S(x-y)$ is Green's
function of a free electron and Σ^{*}, the total self energy, is the sum of
all compact diagrams with two outer electron lines. Fig. 1 shows these

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S/056/61/041/004/010/019
Energy-level shift of the atoms in a ...   B104/B102

diagrams in first (1 - 4) and in second approximation with respect to
the interaction Hamiltonian.   With the aid of

$$\left(\frac{\partial}{\partial x^0} + \mu + \frac{1}{2m}\Delta_x\right)S(x-y) = \delta(x-y),\tag{5}$$

(4) is brought to form

$$\left[\frac{\partial}{\partial x^0} + \mu + \frac{1}{2m}\Delta_x - V(x)\right]G(x,y) - \int dz M(x,z)G(z,y) = \delta(x-y).\tag{7}$$

in which the mass operator M takes account of the effect of the plasma
on the atom. M is defined by the relation $\Sigma^*(x,z) = V(\vec{x})\delta(x-z)+M(x,z)$
where $V(\vec{x})$ is the potential energy of the electrons in the external
field. In first approximation three expressions are obtained for the
mass operator M with the aid of the thermodynamic perturbation theory.
The latter correspond to the diagrams 2,3 and 4(Fig. 1). In second
approximation expressions for M are obtained for the diagrams 5,6,8,9,
10 and 11. Furthermore, M is represented in forms in which the effect
of plasma polarization and of the exchange interaction (diagrams 10,11

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S/056/61/041/004/010/019

Energy-level shift of the atoms in a ...   B104/B102

in Fig. 1) on an atom is taken into account. Thus, expression

$$\delta E_{nl\,non} = \frac{Ze^2}{a}\left\{\frac{a}{d} - \frac{1}{4}\left(\frac{a}{d}\right)^3 [3n^2 - l\,(l+1)]\right\};$$

(20)

is obtained for the level shift due to plasma polarization, where d is the Debye radius and a the Bohr radius. Expression

$$\delta E_{nl\,o6} = \int dp\,|\chi_{nlm}(p)|^2 M_{o6}(p,\,\omega_{\bar{n}n+1} = iE_n^0 - i\mu) = C_{nl}T\,\frac{a}{d} = C_{nl}\sqrt{\frac{2\mu T}{e^2}}\,\omega_0$$

(22)

is obtained for the level shift corresponding to the diagrams of exchange interaction. $\mathcal{W}_0$ is the plasmon energy. With the aid of this expression the author calculates the level shift in first and second approximation with respect to the coupling constant $e^2/2aT$. It is demonstrated in a discussion of these expressions that at high temperatures $(T \gtrsim 10^6\,°K)$ the exchange shift is of greater importance. The author

Card 3/4

28926   S/056/61/041/004/010/019

Energy-level shift of the atoms in a ...   B104/B102

thanks A. I. Akhiyezer, I. M. Lifshits, I. A. Akhiyezer, and S. V. Peletminskiy for discussions. There are 2 figures and 6 references: 4 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: H. R. Greim, A. C. Kolb, K. Y. Shen. Phys. Rev., 116, 4, 1959; T. Matsubara. Progr. Theor. Phys., 11, 351, 1955.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet
(Khar'kov State University)

SUBMITTED: February 16, 1961 (initially), June 19, 1961 (after revision)
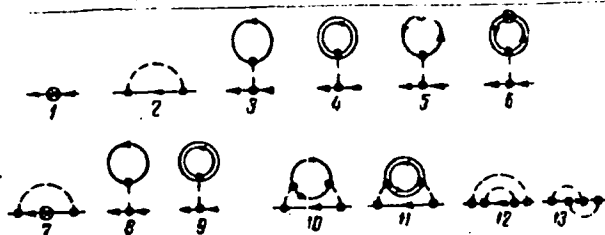
FIG. 1

Card 4/4

PARGAMANIK, L.E.; DAYCH, A.R.; TSIRLIN, Yu.A.

Light transmission through diffusion light guides. Opt. i spektr.
17 no.5:776-783 N '64.   (MIRA 17:12)

L 3157-66   EWT(1)/EWP(c)   IJP(c)   WW/GG

ACCESSION NR: AP5016048

UR/0368/65/002/005/0440/0446

535.376

AUTHORS: Pargamanik, L. E.; Strzhemechnyy, M. A.; Tsirlin, Yu. A.

TITLE: Passage of light through a dispersed detector

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 5, 1965, 440-446

TOPIC TAGS: light transmission, scintillation detector, light diffusion, light dispersion

ABSTRACT: This is a continuation of earlier work by the authors (Opt. i spektr. v. 12, 304, 1962), where it was shown that the propagation of the light of scintillations produced in a layer of dispersed detector can be treated as a process of photon diffusion and described with the aid of the diffusion equation. Whereas the earlier investigation was devoted to propagation of light through the thin layer from a source located on the boundary or outside the layer, in the present paper the authors consider the propagation of scintillations produced inside a layer of finite thickness, bounded by surfaces with different

Card 1/2

L 3157-66

ACCESSION NR: AP5016048

O

reflection coefficients. The scintillation light is produced by ion-
ization and is recorded with photomultiplier having a constant inte-
gration time. Two limiting cases, when the integration time is much
larger than or much smaller than the time interval between successive
scintillations, are considered. In the first case, the problem con-
sists of finding the optimal coefficient of light gathering, and in
the second it consists of finding the optimal light flux density
through the boundary. The results are found to be in satisfactory
agreement with the experimental data on ZnS(Cu) scintillator. Orig.
art. has: 2 figures, 14 formulas, and 1 table.

ASSOCIATION: None

SUBMITTED: 06Jul64   ENCL: 00   SUB CODE: OP

NR REF SOV: 002   OTHER: 001

Card 2/2

L 16430-65   EWT(1)/EEC(t)/EEC(b)-2   P1-4   IJP(c)/ESD(t)/ESD(gs)/RAEM(1)/SSD/BSD/
ACCESSION NR: AP4048753 AFWL/ASD(a)-5/   S/0051/64/017/005/0776/0783
                          AS(mp)-2

AUTHORS: Pargamanik, L. E.; Daych, A. R.; Tsirlin, Yu. A.

TITLE: Passage of light through diffuse light pipes   B

SOURCE: Optika i spektroskopiya, v. 17, no. 5, 1964, 776-783

TOPIC TAGS: light pipe, light transmission, light reflection,
diffusive motion

ABSTRACT: This is a companion paper to earlier work by the authors
(Opt. i spektr. v. 8, 713, 1960) dealing with the passage of light
through light pipes with specularly reflecting walls. Since light
pipes with diffusely reflecting walls are frequently used to pipe
light from scintillators to photomultipliers, the authors calculate
the light transmission of a diffuse pipe light, by determining the
forward motion of the photons reflected from the pipe walls with
the aid of the diffusion equation. The calculation results were

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L 16430-65
ACCESSION NR: AP4048753

then tested, using the set-up shown in Fig. 1 of the Enclosure, for
light pipes made of drawing paper (reflectivity R = 0.82), porce-
lain (R = 0.75), and porcelain tubing coated with white highly re-
flecting paint (R = 0.94). The results demonstrated the applica-
bility of the diffusion theory for the description of the passage of
light through diffuse light pipes. Discrepancies between theory and
experiment at longer wavelengths are explained. Comparison with
specularly reflecting light pipes indicates that for short relative
lengths the diffuse light pipes can compete with the specularly re-
flecting ones and furthermore provide a more uniform light flux
over the surface of the multiplier cathode. They cannot compete,
however, with pipes of the mixed type, which combine total internal
reflection with diffuse reflection. Orig. art. has: 5 figures and
18 formulas.

ASSOCIATION: None

Card 2/4

L 16430-65
ACCESSION NR: AP4048753

SUBMITTED: 02Dec63

ENCL: 01

SUB CODE: OP   NR REF SOV: 003   OTHER: 004

Card 3/4

L 16930-65
ACCESSION NR: AP4048753

ENCLOSURE: 01
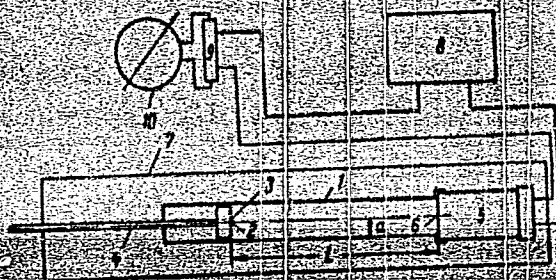
Fig. 1. Diagram of set-up for the measurement of light transmission

1 - Light pipe, 2 - light source, 3 - reflector, 4 - rod for moving
the reflector with the source, 5 - photomultiplier, 6 - photocathode,
7 - light tight case, 8 - voltage source, 9 - shunt, 10 - mirror
galvanometer

Card 4/4

PARGAMANIK, L.E.; PYATIGORSKIY, G.M.

Shifting and broadening of energy levels of single-electron
atoms and ions in a high-temperature plasma. Zhur. eksp. i
teor. fiz. 44 no.6:2029-2038 Je '63.   (MIRA 16:6)

1. Khar'kovskiy gosudarstvennyy universitet.
                 (Plasma(Ionized gases))
                 (Quantum theory)

L 13625-63   EWT(1)/EWG(k)/BDS/EEC(b)-2/ES(w)-2   AFFTC/ASD/ESD-3/AFWL/
SSD   Pz-4/Pl-4/Po-4/Pab-4   AT/Llp(C)
ACCESSION NR: AP3003136   S/0056/63/044/006/2029/2038

AUTHOR: Parzhmanik, L. E.; Pyatigorskiy, O. M.

TITLE: Shifts and broadening of energy levels of single-electron atoms and ions
in a high-temperature plasma

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no.6, 1963, 2029-2038

TOPIC TAGS: energy level shifts, level broadening, single electron atoms,
single electron ions, high-temperature plasma, spectral representation, mass
and vertex operators

ABSTRACT: The spectral representation and a Bethe-Salpeter equation for the
electron-ion Green's function are used to calculate the shifts and widths of the
energy levels of single-electron atoms and ions in an equilibrium high-tempera-
ture plasma. This goes beyond the work reported in a recent paper by L. P.
Kudrin and Yu. A. Tarasov (ZhETF v. 43, 1504, 1962), where this procedure was
used for low-temperature plasma. The calculated quantities are expressed in
terms of the mass and vertex operators obtained by the diagram techniques. The
level shifts are proportional to the square root of the temperature and density
for ions and to the first powers of these quantities for hydrogen atoms, the

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ACCESSION NR: AP3003136

width always being proportional to the density. The one- and two-particle excitations are described with the aid of temperature-dependent Green's functions expanded in Fourier series with respect to the reciprocal of the temperature. The limits of applicability of the obtained results are indicated. Orig. art. has: 3 figures and 38 formulas.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Kharkov State University)

SUBMITTED: 12Jan63   DATE ACQ: 23Jul63   ENCL: 00

SUB CODE: 00   NO REF SOV: 005   OTHER: 006

Card 2/2

44876
S/861/62/000/000/007/022
B125/B102

AUTHORS: Akhiyezer, A. I., Lyubarskiy, G. Ya., Pargamanik, L. E.,
Faynberg, Ya. B.

TITLE: Prebunching and dynamics of a proton bunch in a linear
accelerator

SOURCE: Teoriya i raschet lineynykh uskoriteley; sbornik statey. Fiz.-
tekhn. inst. AN USSR. Ed. by T. V. Kukoleva. Moscow,
Gosatomizdat, 1962, 114 - 130

TEXT: It is shown that a linear accelerator can have a low injection energy
of ~ 0.5 Mev whilst furnishing large currents of ~ 10 to 50 ma. When the
mean accelerating field strength is 20 kv/cm a focusing magnetic field of
15,000 oe is needed in the initial part of the accelerator. This focusing
field becomes rapidly weaker with increasing particle energy. The efficien-
cy of ion capture is increased by klystron bunching. When particles in a
bunch that was originally homogeneous in velocity and density pass along a
segment under an rf field, and immediately afterwards through a field-free
drive segment, they are accelerated at different rates and form bunches of
charge density. The preaccelerated particles must enter the accelerator at
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Prebunching and dynamics of...

S/861/62/000/000/007/022
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the focus $X_1 = v_0/a\omega$. $a = eU/mv_0^2$. U sin $\omega\tau$ is the modulated voltage applied to the acceleration segment, τ the instant when the particle enters the segment, and v_0 the initial velocity of the particle in the bunch. The greater the angular width of the group of particles, the tighter the bunch is pinched on Klystron bunching. If Δv_0 is the initial velocity spread, then the phase range covered after bunching by particles entering the buncher with a velocity of $v_0 + \Delta v_0$ in the phase range $2\psi_0$ is

$\phi = 2\psi_0 (1 - (\sin\psi_0/\psi_0)(1 - 3\Delta v/v_0))$. The effective accelerating field on the accelerator axis can be undesirably attenuated by unequal attenuations of the fields on the axis and on the periphery of the gaps and also by a shift of the field into the drive tube. Long narrow tubes screen considerably better than short wide tubes. According to experimental studies in the Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics AS USSR), the mean value of the electric field strength on the axis remains constant when the gap between the drive tubes is varied, and it increases slightly when the outer diameter of the drive tubes is increased. The problem of multiple gaps cannot be solved from the data available at present. The decreases in the depth of the potential well and in the angle of

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incidence, induced by space charge, are calculated on the basis of the model of an ellipsoidal bunch with slowly changing dimensions. Stable equilibrium corresponds to the synchronous particle phase $\varphi = \varphi_s$. In that model the focusing magnetic field reads

$$\left(\frac{H}{E}\right)^2 = \frac{mc^2}{eE\lambda}\left\{\frac{mc^2}{eE\lambda}\left(4\pi\frac{\Omega}{\omega}\right)^2 + 4\pi\frac{\sqrt{1-\beta^2}}{\beta^2}\sin\varphi_s + \right.$$
$$\left. + \frac{6J}{cEl}\left(\frac{\lambda}{R}\right)^2(1-k)\right\}.$$

(4.1).

$\omega = 2\pi c/\lambda$ is the frequency of the r-f field, 2l the length of the bunch and Ω the frequency of the radial oscillations. The magnetic fields needed for injection energies of 0.5, 18.75, 145 and 350 Mev are 14.5, 7.6, 6.2 and 5.9 koe. The values $\Delta\beta/\beta = 2\%$ for the initial relative velocity spread in the bunch, and $\alpha = 2.2\cdot10^{-2}$ for the modulation factor of the buncher are obtained. There are 9 figures.

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44878

S/861/62/000/000/009/022
B125/B102

AUTHORS: Lyubarskiy, G. Ya., Pargamanik,, L. E.

TITLE: On the compatible oscillations of the accelerating field in linear accelerators

SOURCE: Teoriya i raschet lineynykh uskoriteley, sbornik statey. Fiz.-tekhn. inst. AN USSR. Ed. by T. V. Kukoleva. Moscow, Gosatomizdat, 1962, 147 - 150 ·

TEXT: It is shown that the reductions

$$\frac{\Delta E}{E} = \frac{1}{2}\,\varphi_s^2\,\frac{1-\left(\frac{x'}{x}\right)^2}{1-\left(\frac{x'}{x}\right)^2\,\frac{\varphi_s^2}{2}}. \tag{7}$$

(caused by power oscillations of the feeding generator) are still compatible with the stable motions of accelerated electrons in linear accelerators. $\approx 3\varphi_s$ and $n' = arccos((E/E')cos\varphi_s)$. E is the calculated mean value of the

Card 1/2

On the compatible...

S/861/62/000/000/009/022
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accelerating field and φ_s is the synchronous phase. E' and φ_s' are the corresponding parameters for the varied motions in the same accelerating system. The electrons are assumed to gain the energy $\delta\varepsilon = eEL\cos\varphi_s$ in each period of the accelerator. The final energy of the electrons is assumed to be considerably higher than their rest energy. L is the length of the investigated period. The requirement of synchronism does not impose any limitations upon the increase of the accelerating field. In the absence of focusing, the increase of the beam radius is given by

$r = r_0 + \Theta(\varepsilon_0/eE \cos\varphi_s)\ln(\varepsilon/\varepsilon_0)$. r_0 and Θ are the initial radius and the angle of divergence of the beam, ε_0 and ε are the initial and the final energy. This case corresponds to high electron energies (at least some Mev). Focusing with the aid of a magnetic field is essential in the initial stage of acceleration (up to energies of 2 - 5 Mev). The tolerable increase of the accelerating field increases with the focusing magnetic field. The de-focusing effect of the increase ΔE of the accelerating field can be compensated by the increase $\Delta H/H = (1/2)(H_{lim}/H)^2(\Delta E/E)\sin\varphi_s$ of the magnetic field. This paper was written in 1951.

Card 2/2

44873
8/061/62/000/000/003/022
B125/B102

24.6130

AUTHORS: Akhiyezer, A. I., Lyubarskiy, G. Ya., Pargamanik, L. E.

TITLE: Dynamics and stability of charged particle motion in a linear accelerator

SOURCE: Teoriya i raschet lineynykh uskoriteley; sbornik statey. Fiz.-tekhn. inst. AN USSR. Ed. by T. V. Kukoleva. Moscow, Gosatomizdat, 1962, 38 - 80

TEXT: The motions of a particle bunch in standing- or traveling-wave linear accelerators are considered. The theory is based on the following assumptions: A certain "fundamental particle" travels with the velocity $c\beta$ through all sections of the accelerator at strictly predetermined phases φ, designated as synchronous phase of the section. The initial conditions on injection can differ from the initial conditions of the fundamental particle in phase, radius, magnitude or direction of velocity. Studying the stabilities of the longitudinal and transverse motions of the accelerated particle leads to differential equations of the form $\ddot{q} + \Omega^2(t)q = 0$ (2.1), with $\Omega^2(t)$ positive or negative. From (2.1) the approximate equations

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Dynamics and stability of...

$$q_{k+1} = a_{11}(k) q_k + a_{12}(k) \dot{q}_k \left. \right\}$$
$$\dot{q}_{k+1} = a_{21}(k) q_k + a_{22}(k) \dot{q}_k \left. \right\} \qquad (2.6)$$

are derived. Formulating

$$q_k = A_k \exp \left(i \sum_{m=0}^{k-1} \gamma_m \right)$$

$$\dot{q}_k = B_k \exp \left(i \sum_{m=0}^{k-1} \gamma_m \right) \qquad (2.7)$$

yields the general solution of (2.1);

$$q_k = A_0 \left(\frac{\Omega_0}{\Omega_k} \right)^{1/2} \cos \left(\sum_{i=0}^{k-1} \tau_i \Omega_i + \theta \right). \qquad (2.11);$$

$A_0 = \sqrt{q_0^2 + (\dot{q}_0^2/\Omega_0^2)}$. The differential equation $\frac{d}{dt}(\dot{q}/\sqrt{1-\beta^2}) + \Omega^2(t)q = 0$ has the solution

Card 2/4

Dynamics and stability of...

$$q_k = A_k \cos(\varphi_k + 0) = A_0 \left(\frac{1 - \beta_k^2}{1 - \beta_0^2} \right)^{1/4} \times$$

$$\times \left(\frac{\hat{\Omega}_0}{\hat{\Omega}_k} \right)^{1/2} \cos \left(\sum_{i=1}^{k-1} \hat{\Omega}_i \tau_i + 0 \right). \qquad (2.16),$$

where $\hat{\Omega}$ is the frequency of the oscillations. The longitudinal wave is stable in the synchronous phase range $0 < \varphi_s < \pi/2$. In this range the scattered particle does not escape from the acceleration process. The stability of the longitudinal oscillations decreases as the synchronous phase increases. The capture width $\Delta\varphi = \phi_m + \varphi_s = 2\pi\kappa$; if $\varphi_s \ll 1$, $\Delta\varphi = 3\varphi_s$; φ_m is the maximum, φ_s the synchronous phase. In the case of transverse oscillations the non-relativistic frequency of the particles is $\Omega_r^2 = G - (1/2)(1-\beta^2)C\sin\varphi_s$, and their relativistic frequency is $\hat{\Omega}_r^2 = \sqrt{1-\beta^2} \left\{ G - (1/2)(1-\beta^2)C\sin\varphi_s \right\}$. C is the radial force exerted by the

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Dynamics and stability of...

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radial focusing fields. When $G > 0$, a positive synchronous phase exists, and the longitudinal and transverse phases are stable simultaneously. The defocusing effect of the space charge can be neglected when the effective currents amount to a few hundred ma. Simultaneous longitudinal and transverse stability is simply achieved by focusing with foils. The focusing effect of a magnetron lens is described by $G = (\gamma/N)(eH/2mc)^2 m/m_0$; for protons, it is 1840 times greater than the focusing effect of a longitudinal magnetic field. There are 14 figures.

Card 4/4

TSIRLIN, Yu.A.; PARGAMANIK, L.E.; DAYCH, A.R.

Diffusion of light in dispersing media.   Opt. i spektr.
12 no.2:304-310 F '62.   (MIRA 15:2)
                        (Light—Scattering)

PARGAMANIK, L.E.

Shift of energy levels of atoms in a plasma. Zhur.eksp.i teor.fiz.
41 no.4:1112-1118 O '61.   (MIRA 14:10)

1. Khar'kovskiy gosudarstvennyy universitet.
    (Plasma (Ionized gases)) (Quantum field theory)

PARGIN, D. P.

DECEASED

Machinery

c. '63

1964

PARGOV, M., KIRIAKOV, K.

"Maritsa River Bason, Dimitrovgrad", P. 26, (MINNO DELO, Vol. 9, No. 8, Aug. 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955, Uncl.

NIKOLOV, R., dots., d-r; BALASHEV, Ang., inzh.; KHRISTOV, St., inzh.;
    PARGOVA, Iv., inzh.

Experimental studies of the electric truck EBB 2002 B. Mashinostroene
10 no.10:4-6 O '61.

KOLDOBSKIY, A.G.; MEDVEDEV, S.I.; PISKOPPEL', F.G.; YAKOBSON, M.G. prinimali
    uchastiye: BERKHIN,I.B.; OSLIKOVSKAYA, Ye.S.; PEREKISLOVA, A.M.;
    LITVIN, V.M.; PARKHOMENKO, Ye.V.; STOTIK, A.M.; SHAPIRO, T.I.; STRU-
    MILIN, S.G., akad., glav. red.; ALEKSENKO, G.V., red.; ANISIMOV, N.I.,
    red.; VOLODARSKIY, L.M., red.; GERSHBERG, S.R., redaktor;
    red.; PETROV, A.I., red.; POSVYANSKIY, S.S., red.; BAZAROVA, G.V.,
    kand. ekonom. nauk, starshiy nauchnyy red.; KISEL'MAN, S.M., starshiy
    nauchnyy red.; LIVANSKAYA, F.V., kand. ekonom. nauk, starshiy nauchnyy
    red.; GLAGOLEV, V.S., nauchnyy red.; NEDBAYEV, V.I., nauchnyy red.;
    TUMANOVA, N.L., nauchnyy red.; TOVMASYAN, M.E., red.; BLAGODARSKAYA,
    Ye.V., mladshiy red.; SHUSTROVA, V.M., mladshiy red.; ZENTSEL'SKAYA,
    Ch.A., tekhn. red.

[The economic life of the U.S.S.R.; chronicle of events and facts,
1917-1959] Ekonomicheskaia zhizn' SSSR; khronika sobytii i faktov
1917-1959. Glav. red. S.G.Strumilin. Chleny red. kollegii: Aleksenko
i dr. Moskva, Gos. nauchn.izd-vo "Sovetskaia entsiklopediia," 1961.
779 p.   (MIRA 14:10)

1. TSentral'naya nauchnaya sel'skokhozyaystvennaya biblioteka Vse-
soyuznoy akademii sel'skokhozyaystvennykh nauk im. Lenina (for Litvin,
Parkhomenko, STOTIK, Shapiro).
        (Russia--Economic conditions)

PARHON, C., and others

Studies on the biology of age. V. Action of cysteine and methionine upon
the metabolism of the thioamino acids from the blood serum of the old animals
of various species. p. 119

Academia Republicii Populare Romîne. Institutul de Biochimie. STUDII SI CERC.
DI BIOCHIMIE. Bucuresti, Romania. Vol. 2, no. 2, 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 2, August 1959.

Uncl.

PARHON, C.

PARHON,C.; BABES,A.; PETREA,I.

PARHON,C.; BABFS,A.; PETREA,I.   Effect of prolactin on the structure of ventriculus and ovary of pigeons. p.953.

Vol. 6, no.7, 1956
COMUNICARILE.
SCIENCE
RUMANIA

So: East European Accession, Vol. 6, No.5, May 1957

PARHON, C.

About the mechanical action to produce an insulin shock.

p. 87 (Academia Republicii Popular Romine. Institutul de Fiziologie Normala si Patologica. Studii Si Cercetari De Fiziologie. Vol. 1, nol 1/2, Jan./June 1956. Bucuresti, Rumania)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2, February 1958

PARHON, C. C.

Histamine content of normal and pathological
1. Marcou, C. C. Parhon, Jr., and G. Comsa.
soc. mfd. bosp. Bucaresi 18, 245-58(1938);
Abstracts 22, 361; cf. C. A. 32, 3462[?], 3175[?]. 11
blood normally contains [?] of histamine per
independently of age, sex or nutrition, but it is dimini
in pregnancy. The result is, however, much influence
by the manner of drawing the blood, applying a tourniqu
etc. In most, but not all, cases the histamine of veno
blood decreases rapidly when the circulation is locall
arrested. This is probably due to a dilu. of the blood
occurring in venous stasis, since in man the corpuscle
histamine content is 2 d times that of the plasma. A few

observations on pathol. conditions are recorded; the
notable variations are in circulatory and gastric affe.

PARHON, C.C.; POPESCU, Ilie; BIRZA, Elena; PETCU, Georgeta

Investigations on the interfernece of glutathione in energy metabolism.
Rumanian M Rev. no.1:214-220 Ja-Mr '61.
(METABOLISM pharmacology)   (GLUTATHIONE pharmacology)

PARHON C. C.

CA

II F

PROCESSED AND PROPERTIES INDEX

The level of histamine in venous blood, with and without circulatory restriction. C. C. Parhon and N. Gingold. *Bull. acad. méd. Roumanie* 3, 371-5 (1937).—When the venous circulation is restricted, there is a progressive decrease of histamine in the blood due to diln. by the continual inflow of arterial blood. On the other hand, after arterial restriction, there is an increase of histamine in the blood.　　　　Dorothy W. Asher

METALLURGICAL LITERATURE CLASSIFICATION

PARHON, C.C.; BIRZA, Elena

Action of glutathione upon metabolism in the course of muscular
activity. Studii cerc fiziol 5 no.1:49-52 '60.   (EEAI 9:12)

1. Laboratorul de fiziologie al Facultatii de medicina
veterinara, Institutul agronomic "N.Balcescu."
        (MUSCLES)
        (GLUTATHIONE)
        (METABOLISM)

RUMANIA/Human and Animal Physiology - Internal Secretion.   T
           Epiphysis.

Abs Jour   : Ref Zhur Biol., No 3, 1959, 12925

Author   : Parhon, C.C., Petcu, Georgeta

Inst   : AS RPR

Title   : Influence of Epiphyseal Extracts on Excretion of Creatine
           in the Urine

Orig Pub   : Studii si cercetari fiziol. Acad. RPR, 1957, 2, No 3-4,
           305-308

Abstract : No abstract.

Card 1/1

S/196/62/000/010/006/035
E073/E155

AUTHORS: Rosenberg, M. . Parhon, C.I.

TITLE: Anomalies in the temperature dependence and the
           resistivity of manganese-zinc ferrites in the
           neighbourhood of the Curie point

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika,
            no.10, 1962, 3, abstract 10 B15. (n. Univ.,
            Ser. stiint. natur., v.9, no.25, 1960, 243-247).
            (Rumanian, summaries in Russian and French).

TEXT: In the range 20 to 100 °C the temperature dependence
of ρ in Mn-Zn ferrites of various compositions was investigated.
The results obtained are explained on the basis of a s-d-exchange
model of S.V. Vonsovskiy (Zh. eksperim. i eor. fiz., 16, 1946,
981).

[Abstractor's note: Complete translation.]

Card 1/1

Water content of blood, of muscular tissue, and of certain organs after the extirpation of suprarenal capsules in the rat. C. I. Parhon, M. Cahane, and V. Mirza (Bull. Acad. Sci. Roumaine, 1936, 20, 93—95).—The water content of the blood in the muscular tissue and in certain organs of the rat from which the suprarenal capsules have been removed is greater than that in a normal rat.
A. L. Voam.

βℓ

PROCESSES AND PROPERTIES INDEX

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

Water content of various tissues of animals treated with powdered mammary gland. C. I. PASSOW, M. CABANE, and A. FRANOV (Bull. Acad. Sci. Roumanie, 1930, 12, 165—167).—In guinea-pigs treated daily with mammary gland powder there is a very slight increase in the water content of the brain and of liver, whilst other organs suffer a diminution.
F. O. HOWITT.

METALLURGICAL LITERATURE CLASSIFICATION

E. PARHON, C. I.

The action of deoxyribonucleic acid on the adrenal glands
of albino rats. A histological and histochemical study.
C. I. Parhon, I. Banu, L. Laurian, and D. Klingher.
Comun. acad. rep. populare Romine 2, 87-90(1952).—
Forty-two albino rats received daily doses of 1.5-3 mg of
thymonucleic acid for 5-10 months. An atrophy (I) of
27-34% of the adrenal glands of the males was observed,
but no histological or histochem. changes were found.
It is assumed that the I depresses the function of the adrenal
glands.
                              Emanuel Merdinger

PARHON, C. I.

The orientation of embryogenesis. XII. Action of thyroxine on the embryonic and postembryonic development of the chicken. C. I. Parhon, Lydia Laurian, and N. Albu. *Comun. Acad. Rep. Populare Romane* 4, 69-81 (1954).—Embryos of Leghorn chickens received daily injections of 5.5-10 γ thyroxine in the chorioallantois. The result was dwarfism which developed during the extra embryonic period. The cartilages were not formed, but remained largely open. The incubation time was not modified. The toxicity of the thyroxine on the nervous system is proposed as an explanation. A. Halasz.

PARHON, C.I.; APOSTOL, Natalia

Enzymatic process in tissue respiration and the effect of various glandular protein hydrolysates used in hormone therapy. Bul. stiint., sect. med. 6 no.3:687-703 July-Sept 54.

1. Communicare prezentata in sedinta din 11 aprilie 1953.
    (METABOLISM, TISSUE, effect of drugs on
       glandular protein hydrolytes, mechanism of action)
    (THYMUS
       extract, eff. on tissue metab., mechanism of action)
    (PINEAL BODY
       extract, eff. on tissue metab., mechanism of action)

PARHON, C.; APOSTOL, N.

Respiration of animal testicles in relation to age variations and hormonal treatment. p. 189. COMUNICARILE. Bucuresti. Vol. 5, no. 1, Jan. 1955

Source: East European Accessions List, (EEAL), Lc, Vol. 5, No. 3, March 1956

PARHON, G.

On the eve of the 18th Rumanian Neurological, Psychiatric and Neaurosurgical

conference.   Tr. from the Rumanian. P. 501, KOZLEMENYEI.   Budapest. Vol 5,

no. 4, 1955

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, No. 2, Feb. 1956

PARHON, C.I, AND OTHERS

Effect of nervous excitation, induced by forced immobilization, on the
dynamics of thyrotropin of the hypophysis. p. 1389. Academia Republicii
Populare Romine. COMUNICARILE. Bucuresti. Vol. 5, no. 9, Sept. 1955.

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 5,
no. 9, Sept. 1955

PARHON, C.J.and others.

The parotid gland of castrated male rats and of castrated rats treated with testosterone. p. 1677. Academia Republicii Populare Romine. COMUNICARIIE. Bucuresti. Vol. 5, no. 11, Nov. 1955.

So. East European Accessions List   Vol. 5, No. 9   September, 1956

PARHON, C.J and others

Structure of parotid glands of rats in aging and at the moment of

appearance of sexual dimorphism. p. 1755. Academia Republicii Populare

Romine. COMUNICARILE. Bucuresti. Vol. 5, No. 12, Dec. 1955.

So. East European Accessions List   Vol. 5, No. 9   September, 1956

PARHON, C. I.

RUMANIA / Human and Animal Morphology (Normal and   S
            Pathological). Skeleton.

Abs Jour   : Ref. Zhur - Biologiya, No. 3, 1959, 12342

Author   : Parhon, C.I.; Ionescu, V.
Inst   : —
Title   : The Influence of Progesterone on Growing Cartil-
              age in Sexually-Immature Rats.

Orig Pub   : Studii si cercetari endocrinol., 1955, 6, No. 1-2,
              261-264

Abstract   : In white rats, over a course of 50 days, 1 ml
              each of small (0.02 mg/kg) and large (1 mg/kg)
              doses of progesterone (1st and 2nd groups) were
              introduced. The weight of the animals of the 1st
              group (1) increased on the average by 30.1 g, 2nd
              group (II) by 31.8 g, control by 40-5 g. In I
              there was a considerable delay in the development

Card 1/3

RUMANIA / Human and Animal Morphology (Normal and
        Pathological).   Skeleton.

Abr Jour   : Ref. Zhur - Biologiya, No. 3, 1959, 12342

of cartilagenous tissue: an epiphyseal plate
with a thickness of 240μ (control 280μ), a
small amount of little chondrocytes, between
them a large amount of amorphous substance.
In the formed bone, the bone trabeculas were
shorter than in control animals. In II, a moder-
ate delay in the development of cartilagenous
tissue: an epiphyseal plate with a thickness of
250μ, comparatively more little chondrocytes than
in I but less than in the control. Bone trabe-
culas were as short as in I. Thus, progesterone
disrupts the normal development of bones through
delaying cartilagenous tissue development (de-
crease of the number of chondrocytes and increase
of the amount of amorphous substance) and slowing

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Card 3/3

Parhon, C. I.

RUMANIA/Human and Animal Physiology - Internal Secretion.   V-9

Abs Jour   : Ref Zhur - Biol., No 1, 1958, 4246

Author   : C. Parhon, F. Istrati, G. Ionescu

Inst   : Academy of the Rumanian Popular Republic

Title   : Factors Influencing the Compensatory Hypertrophy of
               the Adrenal Glands. IV. Adrenal Compensatory Hypertro-
               phy after Lumbar Sympathectomy.

Orig Pub   : Studii si cercetari endocrinol. Acad. RPR, 1955, 6,
               No 3,3, 543

Abstract   : In rats, the right adrenal gland was removed, and a left
               lumbar sympathectomy was performed. Twenty days after-
               wards, the left adrenal gland was removed. Its weight
               was increased by 55%; hyperaemia of the vessels of both
               zones was discovered and there were signs of an increased
               activity of the zona glomerulosa. The medulla consisted

Card 1/2

RUMANIA/Human and Animal Physiology - Internal Secretion.   V-9

Abs Jour   :   Ref Zhur - Biol., No 1, 1958, 4246

of large lobules, of 8-11 cells each, clear, vacuolized
or filled with fuel granules. The nuclei of the secretory cells were increased. The medulla showed the structure of pheochromic tissue with an increased activity.
Lumbar sympathectomy stimulates the medulla. The lesser
influence of adrenalectomy on the cortex may be explained
by the distribution in the medulla of vasomotor sympathetic fibers. Lumbar sympathectomy in palliative therapy
of lower extremities' arteritis is performed because of
the peripheral neuroparalytical hyperaemia and of the simultaneously decreased sensitivity of the peripheral vessels to adrenalin - although its secretion is increased
after this operation.

Card 2/2

Π Т Κ Н О Ν

RUMANIA / Human and Animal Physiology.   Internal Secretion.   T

Abs Jour: Ref Zhur-Biol., No 5, 1958, 22503.

Author   : Parkhon, C. I., Babes, A., Petrea, I., Burgher, E.
Inst   : Not given.
Title   : The Testicles of White Rats Following Unilaterial and Bilaterial Parotidectomy.

Orig Pub: Studii si circetari endocrinol Acad. RPP, 1955,
          6, No 3-4, 361-365.

Abstract: Following unilateral parotidectomy (P) no changes
          were noted in the testicles. Following bi-lateral P an inhibition of sperm-atogenesis with
          intact spermatogenic epithelia was noted. This
          confirms the functional relationship between the
          parotids and the testicles.

Card 1/1

far Khan

- RUMANIA/General Biology - Individual Development.

B-4

Abs Jour   : Ref Zhur - Biol., No 4, 1958, 14383

Author   : Parkhon, Laurian, Belechanu, Albu
Inst   : _____
Title   : Study of Guided Embryogenesis. Communication II (or II?).
              Role of Dosages in Development Stage when Forming an
              Experimental Insulin Cataract and Achondraplasis.

Orig Pub   : Studii si cercetari endocrinol. Acad. RPR, 1955, 6, No 3-4
              378-382

Abstract   : Experiments were conducted on chicken embryos, chicks and
              mice. Beginning with the 10-20th day of incubation, 130
              chick embryos were given an insulin injection (single dose
              of 40, total dose of 80-200 γ). The later insulin injec-
              tions were begun, the rarer were the cases of achondropla-
              sia and cataract. When insulin was injected in doses of
              100-180 γ into 1-3 day old chicks, 2-sided massive cata-
              racts were noted, with subsequent death of chicks. When

Card 1/2

Abs Jour - . - _____

When 12.5 - 25 γ of insulin was injected into adult mice,
manifestations of hypoglycemic shock were observed after
30-60 minutes, accompanied by opacity of the crystalline

ract, the intensity of which was proportional to the
shock's duration. The cataract was reversible. At ini-
tial stages of development smaller doses of insulin were
necessary for cataract formation than at later stages.
The mode of reaction of the organism to insulin injection
differed depending on the stage. A larger percentage of
chicks with achondroplasie was noted when insulin treat-
ments were begun at later periods of incubation. The
author believes that the pathogenesis of cataract and
congenital bone defects is connected with carbohydrate
metabolism.

Card 2/2

Parhon, S.

RUMANIA/Human and Animal Physiology - Internal Secretion.   V-9

Abs Jour   : Ref Zhur - Biol., No 1, 1958, 4247

Author   : S. Parhon, F. Istrati, G. Ionescu

Inst   : Academy of the Rumanian Popular Republic

Title   : Factors Influencing the Compensatory Hypertrophy of
              the Adrenal Glands. V. Adrenal Compensatory Hypertrophy
              after Subdiaphragmal Vagotomy.

Orig Pub   : Studii si cercetari endocrinol. Acad. RPR, 1955, 6,
              No 3, 4, 543-544

Abstract   : Subdiaphragmal vagotomy does not influence the compensa-
              tory hypertrophy of the adrenal glands. The weight of
              the remaining gland increases by 61%, the relationship
              of the weight of the gland to that of the body is not
              changed. There are no histological changes in the adre-
              nal. Only in the zona reticulata does one observe a

Card 1/2

certain density of the cells - which is not normal in
the adrenal glands. The medulla shows no changes.
Subdiaphragmal vagotomy may be used in surgery without
any fear that it could disturb adrenal function.

Card 2/2

PARHON, C.I.,academician,; BABES, A.,; PETREA, I.,; ISTRATI, P.,; BURGHER, E.

Study of the structure of submaxillary salivary glands in white rats
Bul. stiint., sect. med. 7 no.2:487-498 Apr-June 55.

(SUBMAXILLARY GLAND, anat. & histol.
struct. in white rats)

PARHON, C.I.,academician,; BABES, A.,; PETREA, I.,; ISTRATI, F.,; BURGHER, E:

Structure and sexual dimorphism of the parotid gland of the white
rat. Bul. stiint., sect. med. 7 no.3:851-862 July-Sept 55.

(PAROTID GLAND, anat. & histol.
    morphol. & sexual dimorphism, in white rat)
(SEX CHARACTERISTICS
    sexual dimorphism of parotid gland, in white rat)

PARHON, C.I., academician,; POTOP, I.,; BARES, A.,; PETREA, I.,; FELIX,
I.,; JUVINA, B.

Decrease in malignancy of methycholanthrene-induced tumors
(mesenchymomas) in white rats following thymus extract therapy.
Bul. stiint., sect. med. 7 no.3:863-870 July-Sept 55.

(NEOPLASMS, experimental
   methylcholanthrene-induced mesenchymomas, eff. of
   thymus extract)
(MESENCHYMOMA, experimental
   methylcholanthrene-induced in white rats, eff. of thymus
   extract)
(THYMUS
   extract, eff. on methylcholanthrene-induced tumors in
   white rats)

PARHON, C.I.,academician,; OERIU, S.; TANASE, I.

Studies of the biology of various ages. I. The ratio of methionine
to cysteine-cystine as a test for determination of age in
experimental studies. Bul. stiint., sect. med. 7 no.3:883-889 July-Sept 55

1. Membru corespondent al academiei r.p.r. (for Oeriu)
        (AGING, effects
            on ratio of methionine to cysteine-cystine in blood,
            in rats)
        (METHIONINE, in blood
            eff. of aging on ratio of methionine to cysteine-cystine,
            in rats)
        (CYSTEINE, in blood
            same)
        (BLOOD
            cysteine, cystine & methionine, eff. of aging, in rats)

RUMANIA/Human and Animal Physiology. Metabolism.   T

Abs Jour: Ref Zhur-Biol., No 8, 36145.

Author : Parhon C.I., Cerin, S., Tanase, I.
Inst   :
Title   : Investigation of the Problem of Age II. The Effect of
          Cysteine and Methionine on the Metabolic Processes of
          Thioamino Acids in the Blood of Old Rats.

Orig Pub: Bul. stiint. Acad. R. P. Romine Sec. med., 1955, 7,
          No 3, 891-899.

Abstract: Subcutaneous injections in old rats of cysteine or
          cystine and methionine during a period of 6 weeks was
          followed by a ratio of methionine/cysteine + cystine
          characteristic only for young animals. Drug inhibi-
          tion of the central nervous system in young rats or

Card   : 1/2

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Card   : 2/2

USSR / General Biology. Individual Development.   B-4

Abs Jour: Ref Zhur-Biol., No 10, 1958, 42817.

Author   : Parkhon, K. I.; Laurian, Lidiya; Belechanu, Marianna;
           Aibu-Aderka, Nataliya.
Inst   : Not given.
Title   : Controlled Embryogenesis. Report 5. Effect of In-
           sulin on Hen Embryonic Development (Congenital
           C$_a$taract and Achondroplasia).

Orig Pub: Zh. med. nauk. Akad. RNR, 1956, 1, No 2, 5-47.

Abstract: Studies were conducted on eggs of White Leghorn
          and Rhode Island varieties. All told, 1000 eggs
          were used. Insulin (I) was introduced either by
          drops on the chorioallantois, or by injection
          through the shell. The eggs were treated daily or
          every other day, beginning with the 7th and up to
          the 14th day of incubation. In each injection

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                                13

RUMANIA/Human and Animal Physiology - Internal Secretions   T-7
            The Thymus.

Abs Jour   : Ref Zhur - Biol., No 18, 1958, 34388

Author   : Parhon, C.I., Babes, A., Petrea, I.

Inst   : Rumania AS.

Title   : Reticular Tissue Hyperthrophy after Atropinization of the
              Thymus Medulla.

Orig Pub   : Studii si cercetari endocrinol. Acad. RPR, 1956, No 4,
              489-493

Abstract   : As 40 γ /kg of atropine were injected into the thymus (T)
              medulla of rats, a reticular tissue (RT) hypertrophy was
              observed which was signified by large epitheliolical cells
              with large nuclei and slightly colored cytoplasm. These
              cells form reticular symplasts. Here and there Gassal cor-
              puscles were detected. Reactions of RT medulla differ from
              T cortical layer reactions.

Card 1/1

1008. ACTION OF PROLACTIN ON THE MAMMARY GLAND AND THE ADI-
POSE TISSUE IN GUINEA-PIGS - Acţiunea prolactinei asupra glandei
mamare şi a tesuţului grăsos la cobai - Parhon C. I., Babeş A.
and Petrea I. - COM. ACAD. R. P. R. 1956, 6/8 (1021-1026) Illus. 8

The administration of prolactin to guinea-pigs produces, in addition to charac-
teristic hyperplasia of the mammary glandular tissue, proliferation of the epi-
dermis as well as of the adipose tissue of this region. The epidermic proliferat-
ive process manifests itself by a thickening of the epidermis with a process of
acanthosis, which passes into the formation of cords and islets deep in the der-
mis, where some of them take on the aspect of epidermic pearls. In the adipose
tissue of this region, intense hyperplasia is observed. This hyperplasia passes
macroscopically into the formation of actual lardaceous tumours, of the size of
a pigeon's egg. Microscopically, these tumours are found to be made up of a
large number of adult and young adipose cells. These cells probably have a
reticulo-endothelial origin.

PARHON, C. I.

Histo-functional significance of alkaline phosphatase in the salivary glands of guinea pigs after treatment with parotid-gland-hydrolyzate. C. I. Parhon and I. Petrea. *Comun. acad. rep. populare România* 6, 1111-6 (1956). — The hydrolyzate was prepd. from beef parotid glands by alk. hydrolysis. Treated animals showed an increased alk. phosphatase activity. Alk. phosphatase was distributed in the periphery of the cells, in the cellular membranes, and in the intercellular and interacinal spaces. This distribution demonstrates that the secretion elimination, and utilization of the enzyme is through a secretory mechanism. The elimination of phosphatase in the parotid gland demonstrates that it does not take part in the salivary digestion of carbohydrates but is concerned in blood metabolism. — A. Halasz

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Excerpt: M Pon Suc.3 Vol.12/6 Endocrinology June 50

1242. CORRELATION BETWEEN THE NERVOUS SYSTEM AND T.. CRINE GLANDS. II. A. MORPHOLOGICAL AND BIOCHE.. OF THE ENDOCRINE GLANDS AND OTHER ORGANS L. LONG TIME AFTER TOTAL OR UNILATERAL EXTIRPA.. CEREBRAL CORTEX; VAGINAL SMEAR STUDIES. B. ... AND BIOCHEMICAL STUDY OF THE ENDOCRINE GLANDS .... ORGANS IN THE CAT, AFTER VARIOUS PARTIAL LES... OF FRONTAL LOBES - Corelații între sistemul nervos și gl... Nota II. A. Contribuții la studiul morfologic și biochimic al crine și al altor organe la pisici, la interval lung d... decor... decorticare și observații asupra examenului citovaginal la ace... B. Contribuții la studiul morfologic și biochimic al glandelor ... al altor organe la pisici, după leziuni variate parțiale ale lobilor fr... Parhon C.I., Laurian L., Bălăceanu M., Bălăcen... Costin E., Biener J. and Albu N. Inst. de Endocrinol. 'Pr.. C.I.Parhon', București - STUD.CERC.ENDOCR. 1956, 7/1 (19-41) Gr. .. Illus. 34

A morphological study was made of the endocrine glands and the liver in ... long time (4 to 18 months) after total or unilateral extirpation of the cer... cor-tex and after various partial lesions of the frontal lobes (orbital and si.... gions). Total or unilateral extirpation of the cerebral cortex did not prod.. evident morphological modification of the endocrine glands. These oper.. pro-duced a prolongation of the oestrous period, sometimes leading to an alm.. stant oestrus. When they affect the orbital region, lesions of the frontal lo.. pro-voke a more or less marked testicular degeneration, disturbances of the ski.. and the coat, as well as a fall in weight. The biochemical constants studied did ... present notable modifications in any category of animals. A tendency to hyper-cholesterolaemia was observed in decorticated cats and in those submitted to ablation of the orbital regions. The significance of the integrity of the cortico-diencephalic circuits for the regulation of ovarian function and the trophic role of the orbital region, the principal cortical projection of the vegetative system, are discussed.

RUMANIA/Human and Animal Physiology (Normal and Pathological).   T-9
Internal Secretion. General Problems.

Abs Jour   : Ref Zhur - Biol., No 11, 1958, 51019

Author   : Parhon, C.I.; Istrati, F., Ionescu, G.

Inst   : Academy of Sciences People's Republic of Rumania.

Title   : Certain Animal Hormones and Endocrine Gland Extracts In-
              fluencing the Root System of the Willow Tree (Salix ca-
              preea).

Orig Pub   : Studii si cercetari endocrinol. Acad. RPR, 1956, 7, No 3,
              301-309.

Abstract   : Thyroxin, folliculin, and endocrine gland extracts stimula-
              te the growth and development of willow roots. Thyroxin,
              as well as placenta and suprarenal gland extracts stimula-
              te the growth of secondary root branches, while folliculin

Card 1/2

RUMANIA / Human and Animal Physiology. Metabolism.   T

Abs Jour   : Ref Zhur - Biol., No 15, 1958, No. 69809

Author   : Parhon, C. I.; Apostol, N.
Inst   : Academy RPR
Title   : The Role of the Nervous System in Metabolic Reactions.
              The Action of an Extract of the Thymus Gland on Tissue
              Respiration

Orig Pub   : Studii si cercetari endocrinol. Acad. RPR, 1956, Vol 7,
              No 3, 317-324

Abstract   : The muscles and testes of rabbits were denervated. Tissue
              respiration was studied by the Warburg method in a
              phosphate medium at pH 7.0. With the addition of extract
              of thymus gland (TGE) to the tissue of muscles and testes
              taken from intact animals, there was an increase in O_2
              consumption. Following denervation, this effect of TGE
              did not occur. The addition of TGE to muscles taken

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PARKHON,

B-4

RUMANIA/General Biology - Individual Development.

Abs Jour   : Ref Zhur - Biol., No 8, 1958, 33375

Author   : Parkhon, Laurian, Belechanu, Albu
Inst   :
Title   : Effect of Cortisone on Development of Chick Embryo.
                (Vliyanie kortizona na razvitie kurinogo zarodysha).

Orig Pub   : Studii si cercetari endocrinal. Acad. RPR, 1956, 7,
                No 4, 451-457

Abstract   : After introducing 0.25-1.4 mg of cortisone into eggs a
                marked lag in development is noted (delay of embryo
                growth and feathering development, disruption of epi-
                physis structure) and ocular anomalies ("bovine eye",
                enlarged cornea, keratoconus). The authors consider
                that delay of development is caused as a consequence of
                disruption of protein metabolism and the anomaly of
                ocular development is one of the manifestations of
                development delay caused by conservation of mesenchyme

Card 1/2

Parhon, C. T.

The action of 4-aminosalicylic acid (PAS) and its derivatives (ethyl and benzyl esters) on the endocrine system. C. I. Parhon, St. Secǎreanu, M. Pitis, and L. Ianců. Acad. rep. populare Romîne, Bul. stint. Sect. Stiint. med. 2, No. 1, 100-81(1950).—The main line of this work is based on the utilization of some const. secondary activities of a few chemotherapeutic compds. in the stimulation, inhibition, or substitution of hormonal functions. One hundred rats were used (males, females) and the morphology changes produced by PAS, and its Et and benzyl esters on the endocrine system were studied. The Na salt of PAS was given for 3 months at doses of 11.5 mg./day; its Et ester 3 mg./day; and benzyl ester 10 mg./day. PAS-Na produces a hypophysis stimulation, hyperplasic and hyperfunctional modifications of the thyroid, involutive processes of the germinal cells, with stimulation of the interstitial cells of the gonads. The benzyl ester produces a hypophysis basophilia and a stimulation of the adrenals. The Et ester produces an active stimulation of the endocrine system with a predominance on the adrenalogonadic system. No modifications were observed in the animals treated with the oil vehicle.
                                                   Marthe Arnon

PARHON, C. I.

RUMANIA / General Biology. Individual Development   B-4

Abs Jour: Ref Zhur - Biol., No 6, 1958, 23778

Author : Parhon, C. I., Laurian, Belschanu, Albu
Inst   : Not given
Title   : Experiment on Control of Embryogenesis.

Orig Pub: Bul. stint. Soc. med., 1956, 8, No 2, 457-498

Abstract: Tests were conducted on the effect of hormones
          (thyroxin, insulin, desoxycorticosterone, cortisone,
          parathyroid gland hormone) and extracts (placental
          protein of bifurcate gland and epiphyseal) on
          development of chick embryos. Results of effects
          of these substances: dwarfism; congenital insulin
          cataract and achondroplasia, as a consequence of
          carbohydrate metabolism disturbance; growth stimu-
          lation as a result of introduction of epiphyseal
          hormone; retarded development, accompanied by

Card 1/2   *mh. Academy*

Card 2/2

PARHON, C. I., Academician; POTOP, I.; BABES, A.; PETREA, I.; JUVINA, E.;
FELIX, E.

Morphological and biochemical studies of experimental cancer in
thymectomized rats. Bul. stint., sect. med. 8 no.2:499-515 Apr-
June 56.

(NEOPLASMS, experimental
    eff. of thymectomy, in rats, morphol. & biochem. study)
(THYMUS, eff. of excision
    on develop. of exper. cancer, in rats, morphol. & biochem.
    study)

EXCERPTA MEDICA Sec 20 Vol 2/7 Gerontology July 59

919. The biology of ages. Contributions to the biochemical study of the biology of ages in various species of animals. A synthesis PARHON C. I. and CERIU S. Bucharest. *Proc. IVth Congress Int. Ass. Geront., Merano, July 1957, Vol. I. Biol. Soc. Meaning of Aging* (203–210) Tables 11

In man, the mean value of oxidized glutathione in the blood increases with age, being 3.14 mg./100 ml. in persons between 10 and 20 yr. of age, and 7.43 mg./100 ml. in persons between 80 and 90 yr. In the rat, the concentrations of cystine and oxidized glutathione increase with age, while that of methionine decreases. The influence of administration of methionine, and particularly of cysteine, on the concentrations of thioamino-acids and of oxidized glutathione in old animals (leading to values not very different from those observed in young and middle-aged animals) raises the problem of the action of cysteine in man as a means of preventing premature aging.

3985. SELECTED WORKS. II. PSYCHOLOGY AND PSYCHIATRY - Opere alese -
Vol. II - Psihologie si Psihiatrie - Parhon C. I. - ED. ACAD. REPUBL.
POP. ROMÎNE 1957 (527 pages) Tables 5 Illus. 9
The volume contains articles concerning psychiatric and psychological problems,
research into the relationship between psychiatry and endocrinology, prophylaxis
and the treatment of mental diseases. Many articles are about the role of thyroid
in affective psychosis; the anatomo-pathological modification of some endocrine
glands in different psychoses (general paralysis, epilepsy, dementia praecox,
pellagra); the mental troubles in Graves-Basedow's disease; the weight of the
thyroid, kidney, liver, spleen, testicle etc. in the chronic delire. The treatment of
schizophrenia with small doses of insulin is also described. Every article has a
French and Russian summary.   Puşcariu - Eminescu

PARHON, C.I.; PITIS, Marcella; STANESCU, V.; SEGAL, Leiba; IONESCU, V.

Considerations on 12 cases of Cushing's syndrome occurring in
childhood or adolescence. Rumanian M. Rev. 1 no.3:60-69 July-Sept 57.
        (CUSHING SYNDROME, in inf. & child
              in child. & adolescents)

PARHON, C.I.

Preventive treatment and cure of aging phenomena; action of novocaine
as eutrophic and rejuvenating factor. Rev. sc. med., Bucur. no.2:5-21
1957.

1. Membre de l'academie de la republique populaire roumaine et Ana Aslan.
    (PROCAINE, eff.
        on aging, eutrophic & rejuvenating action (Fr))
    (AGING, eff. of drugs on
        procaine, eutrophic & rejuvenating action (Fr))

RUMANIA / Human and Animal Physiology. Internal Secretion.   T-7

Abs Jour   : Ref Zhur - Biologiya, No 1, 1959, No. 3660

Author   : Parhon, C. I.; Jstrati, F.; Sterescu, N.
Inst   : Not given
Title   : Experimental Study of the Role of the Nervous System
              in Vaginal Response to Estrogenic Hormones

Orig Pub   : Fiziol. norm. si patol., 1957, 4, No 2, 100-105

Abstract   : Exposure of castrated female rats to light somewhat
              sensitizes them to estrogens, as expressed in a shorter
              latent period of the estrus stage. No change in the
              sensitivity to estrogens was observed when the animals
              were kept in a dark room.

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PARHON, C. I.

RUMANIA/General Problems of Pathology - Tumors. Immunity.   U.

Abs Jour   :   Ref Zhur - Biol., N° 21, 1957, 98208

Author   :   Parhon, C.I., Babes, A., ..., I.

Inst   :   Rumanian Academy

Title   :   Significance of Heter transplantation of Human Cancer in
               and New Perspectives in experimental and Clinical Oncology

Orig Pub   :   Comun. Acad. RPR, 1957, 7, N° 6, 615-620

Abstract   :   No abstract.

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EXCERPTA MEDICA Sec 20 Vol 2/7 Gerontology July 59

967.   Concepts regarding the treatment of old age Auffassungen über Therapie des Alterns. PARHON C. I. Inst. für Geriat., Bukarest *Therapiewoche* 1957, 8/1 (1-3)

This is a brief synthesis of the author's concepts about the problems of aging, based on investigations carried out over a period of nearly 50 yr. He considers old age as a dystrophic (pathological) state, which develops slowly, parallel with growth and differentiation. Understanding of its mechanism implies a study of the human body's modifications during a life-time. In 1926, he proposed that this study be named 'illikibiology'. Experimentally obtaining and clinically observing the slowing or acceleration of the process of aging through influencing the functions of the endocrine glands and of the CNS, the author reached the conclusion that modern science possesses certain therapeutic resources capable of favourably influencing the process of aging, and that consequently the fatalistic point of view must be combated. Supported by the phenomena of dedifferentation found in certain cerebral tumours, the author foresees the possible reversibility of biological processes, something which may open the way to rejuvenation or the prolongation of life by an active therapy.   Aslan – Bucharest

Parhon, C.I.

RUMANIA/Plant Physiology - Growth and Development I.

Abs Jour : Ref Zhur - Biol., No 18, 1958, 82033

Author : Parhon, C.I., Istrati, F., Sahleanu, V.

Inst : Academy RPR

Title : The Reaction of Sections of Stalks of Sunflower Helian-
thus Annuus on the Action of Certain Animal Hormones
and Extracts of Endocrine Glands

Orig Pub : Studii si cercetari endocrinol. Acad. RPR, 1957, 8, No 1,
33-45

Abstract : The action of tyroxin (in concentrations of I and 2 mg
in 50 ml water), folliculin (2000 and 1000   in the
same amount of water), insulin (40 and 20   ) as well
as albumin extracts of the thyroid gland, suprarenal
gland, placenta and testicle (4 and 2 ml in 50 ml water
for each one of them on plant growth was studied.

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PARHON, C I

RUMANIA/Human and Animal Physiology (Normal and Pathological)   T
    Internal Secretion. Epiphysis.

Abs Jour   : Ref Zhur Biol,, No 6, 1959, 26745

Author   : Parhon, C.I., Laurian, L., Balaceanu, M., Albu, N.
Inst   :
Title   : XVII. The Influence of Epiphysis on Endocrine Glands
    of Chicken Embryo

Orig Pub   : Studii si cercetari endocrinol. Acad, RPR, 1957, 8,
    No 1, 104-105

Abstract   : The introduction of epiphysis extract (EE) to chicken
    embryo stimulates the development, growth and appearance
    of feathers and also increases resistance to pathogenic
    factors. In one-day-old chicks which received EE dur-
    ing embryonal period, no changes were found in hypophy-
    sis, adrenals, thyroid, thymus and pancreas, testes lag-
    ged somewhat in development. In control chicks spermato-
    goniae and spermatocytes were discovered; in those

Card 1/2

    receiving EE only spermatogoniae with single spermato-
    cytes. -- S.M. Malamud

Card 2/2